

ABSTRACT OF THE DISCLOSURE

A non-lasing superluminescent light emitting diode (SLED) comprises a semiconductor heterostructure forming a PN junction and a waveguide defining an optical beam path. The heterostructure includes a gain region and an absorber region
5 in series with the gain region in the optical beam path. A voltage is applied to the PN junction in the gain region by first contact means, so that light emission from the active region and along the optical beam path is produced. According to the invention, second contact means are provided, contacting the PN junction in the absorber region and operable to remove charge carriers generated by absorption in
10 the absorber region. The second contact means are not connected to a voltage source, but to a charge carrier reservoir such as a metal surface. According to a preferred embodiment, the two end facets of the waveguide are perpendicular to the optical beam path.